

SUPPLEMENTAL AMENDMENT

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Gary M. Jacobs on 10/10/2008.

The application has been amended as follows: Please refer to the attached amended claims 1-8, 11, 13, 14 and 17-20 on the following pages.

1. (Currently Amended) An image processing apparatus comprising:
an input unit configured to input image data including image components;
an image processor configured to process the input image data;
a generating unit configured to generate plane mesh image data representing a plane mesh image having equally spaced grid lines and transform the plane mesh image data by changing one of the space or and the tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processor~~; and
an adding unit configured to add the transformed mesh image data to the image data processed by the image processor.
2. (Previously Presented) The image processing apparatus according to claim 1, wherein the distortion occurs during capturing an image to obtain the image data.
3. (Previously Presented) The image processing apparatus according to claim 1, wherein the generating unit transforms the plane mesh image data according to attribute information included in the input image data.
4. (Previously Presented) The image processing apparatus according to claim 1, wherein the generating unit transforms the plane mesh image data according to information relating to an optical system that captures the image data.

5. (Previously Presented) The image processing apparatus according to claim 4, wherein the generating unit transforms the plane mesh image data according to information on a bulge aberration of the optical system.

6. (Previously Presented) The image processing apparatus according to claim 4, wherein the generating unit transforms the plane mesh image data according to information on a zoom magnification of the optical system.

7. (Previously Presented) The image processing apparatus according to claim 6, wherein the generating unit generates the plane mesh image data having a large mesh size when the image data has been captured on a telescopic side of the optical system and generates the plane mesh image data having a small mesh size when the image data has been captured on a wide-angle side of the optical system.

8 (Previously Presented) The image processing apparatus according to claim 4, further comprising a sensor that detects a tilt of the optical system, and wherein the generating unit transforms the plane mesh image data according to a tilt of the optical system.

9-10. (Canceled)

11. (Currently Amended) An image processing apparatus comprising:
an input unit configured to input image data comprising image components;
an image processor configured to process the input image data;

a transforming unit configured to transform an image based on the image data input by the input unit;

a generating unit configured to generate plane mesh image data representing a plane mesh image having equally spaced grid lines and transform the plane mesh image data by changing one of the space or and the tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processor which is transformed corresponding to the image transformed by the transforming unit;~~

an adding unit configured to add the transformed plane mesh image data generated by the generating unit to the image data transformed by the transforming unit; and

a recording unit configured to record onto a storage medium, the image data in which the mesh image data is added.

12. (Canceled)

13. (Previously Presented) The image processing apparatus according to claim 11, wherein the generating unit transforms the plane mesh image data according to attribute information included in the input image data.

14. (Previously Presented) The image processing apparatus according to claim 11, wherein the generating unit transforms the plane mesh image data according to information relating to an optical system that captures the image data.

15. (Canceled)

16. (Canceled)

17. (Currently Amended) An image processing method, comprising:

an input step of inputting image data including image components;

a processing step of processing the input image data;

a generating step of generating plane mesh image data representing a plane mesh image having equally spaced grid lines and transforming the plane mesh image data by changing one of the space ~~or~~ and the tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processing step~~; and

an adding step of adding the transformed mesh image data to the image data processed by a processor that performs the processing step.

18. (Currently Amended) An image processing method, comprising:

an input step of inputting image data comprising image components;

an image processing step of processing the input image data by a processor;

a transforming step of transforming an image based on the image data input by the input unit;

a generating step of generating plane mesh image data representing a plane mesh image having equally spaced grid lines and ~~transform~~ transforming the plane mesh image data by

changing one of the space or and the tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processing step or corresponding to the input image data transformed in the transforming step;~~ and

a recording step of recording the input image data and the transformed plane mesh image data onto a storage medium.

19. (Currently Amended) A computer program stored on a computer-readable medium for causing a computer to execute the steps of:

inputting image data including image components;

processing the input image data;

generating plane mesh image data representing a plane mesh image having equally spaced grid lines; and

~~transforming transform~~ the generated plane mesh image data by changing one of the space and the or tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processor;~~ and

adding the transformed mesh image data to the image data processed by the processing step.

20. (Currently Amended) A computer-readable storage medium storing a computer program for causing a computer to execute the steps of:

inputting image data including image components;

processing the input image data;

generating plane mesh image data representing a plane mesh image having equally spaced grid lines; and

transforming ~~transform~~ the plane mesh image data by changing one of the space and the ~~or~~ tilt angle of the grid lines, wherein the transforming of the plane mesh image data is performed according to a distortion presented in the input image data ~~or the processing performed by the image processor~~; and

adding the transformed mesh image data to the image data processed by the image processing step.

Reasons for Allowance

2. Based on applicant's amendment/persuasive arguments, see the remarks on pages 8-11, filed on 06/30/2008, the art rejection for claims 1-8, 11, 13, 14 and 17-20 has been withdrawn. Therefore, claims 1-8, 11, 13, 14 and 17-20 are allowable.
3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOSEF KASSA whose telephone number is (571) 272-7452. The examiner can normally be reached on Monday-Thursday from 8:00 AM to 6:30 PM.

The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communication and (571) 273-8300 for after Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the customer service office whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/06/2008.

/YOSEF KASSA/

Primary Examiner, Art Unit 2624